Docket No.: 263356US0XPCT Preliminary Amendment

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A process for the preparation of <u>a</u> block <u>copolymer</u> eopolymers by means of radicalic polymerization, which comprises:

a) polymerizing a vinylaromatic monomer at a temperature higher than, or equal to, 120°C, in the presence of a radicalic initiating system, consisting of a compound having general formula (I):

$$X_1$$
 R_2
 R_1
 R_2
 R_2
 R_3
 R_2
 R_1

wherein R_1 and R_2 , the same or different, represent a methyl or ethyl radical, X_1 represents a hydrogen atom, X_2 represents a hydrogen atom or a hydroxyl, or X_1 and X_2 , the same or different, represent a C_1 - C_4 (iso)alkyl radical, or, they jointly form an aromatic ring, n is equal to zero or 1, and R_3 represents a radical selected from one of the following groups:

$$-C(CH_3)_2-CN[[;]],$$

-C(CH₃)₂-Ph[[;]], or

-CHCH₃Ph;

or R₃ is absent, as in that position there is an un-coupled electron, used in a mixture with radical generator compounds (G) selected from peroxides, peresters, percarbonates, or azobisdialkyldinitriles, and with molar ratios I/G lower than 4;

until a conversion of the monomer ranging from 5 to 99.9% is obtained;

b) feeding to the polymerization mixture of step (a), after obtaining the desired conversion, a monomer deriving from (meth)acrylic acid in such a quantity that, at the end of

Docket No.: 263356US0XPCT

Preliminary Amendment

the polymerization, the total weight of the block copolymer, Mw, is lower than 1,000,000, operating at the same temperature, and in the presence of the same initiating system;

c) recovering, at the end of the polymerization, the block copolymer thus obtained.

Claim 2 (Original): The process according to claim 1, wherein the R_3 group is $-C(CH_3)_2$ -CN.

Claim 3 (Original): The process according to claim 1, wherein the R₃ group is -C(CH₃)₂-Ph.

Claim 4 (Original): The process according to claim 1, wherein the R₃ group is -CHCH₃Ph.

Claim 5 (Original): The process according to claim 1, wherein the R₃ group is absent.

Claim 6 (Currently Amended): The process according to <u>claim 1</u> any of the previous elaims, wherein the polymerization of both step (a) and step (b) is carried out at a temperature ranging from 120 to 150°C.

Claim 7 (Currently Amended): The process, according to <u>claim 1</u> any of the previous elaims, wherein the initiator having general formula (I) is present in concentrations ranging from 0.01 to 2% in moles with respect to the total moles of the monomers fed.

Claim 8 (Currently Amended): The process according to claim 1, wherein the initiator having general formula (I) is used with free radical generators (G), selected from

Docket No.: 263356US0XPCT

Preliminary Amendment

dibenzoyl peroxide, dicumyl peroxide, or N,N'-azobis-(diisobutyronitrile); and with molar ratios I/G ranging from 1 to 3.

Claim 9 (Currently Amended): The process according to claim 1 any of the previous elaims, wherein the polymerization of both steps (a) and (b) is carried out batchwise, in continuous or semi-continuous at a temperature higher than 120°C and at a pressure, which is such as to maintain the monomers in liquid phase.

Claim 10 (Currently Amended): The process according to claim 1 any of the previous elaims, wherein in the radicalic initiating system, having general formula (I), X_1 and X_2 jointly form an aromatic ring, and n is equal to zero.

Claim 11 (Currently Amended): The process according to claim 10, wherein the initiator having general formula (I) is selected from:

1,1,3,3-tetraethyl-2-(2-cyanoprop-2-yl)-2,3-dihydro-lH-isoindole;

1,1,3,3-tetraethyl-2-(2-phenylprop-2-yl)-2,3-dihydro-lH-isoindole;

1,1,3,3-tetraethyl-2-(2-phenylethyl)-2,3-dihydro-lH-isoindole;

1.1.3.3-tetramethyl-2-(2-cyanoprop-2-yl)-2.3-dihydro-lH-isoindole;

1,1,3,3-tetramethyl-2-(2-phenylprop-2-yl)-2,3-dihydro-lH-isoindole; or

1,1,3,3-tetramethyl-2-(2-phenylethyl)-2,3-dihydro-lH-isoindole.

Claim 12 (Currently Amended): Block copolymers, based on vinylaromatic monomers and monomers deriving from (meth)acrylic acid, obtained with the process according to claim 1 any of the previous claims.

4